

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ROBERT W. SMITH, DAVID S. COBBLEDICK, CHARLES S. KAUSCH, DONALD F. REICHENBACH, SATISH C. SHARMA and RICHARD SIMMONS

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Appeal No. 96-1320  
Application 08/081,744<sup>1</sup>

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ON BRIEF

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Before DOWNEY, ELLIS and OWENS, *Administrative Patent Judges*.  
OWENS, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This is an appeal from the examiner's refusal to allow

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<sup>1</sup> Application for patent filed June 23, 1993.

claims 1, 2, 5-9 and 19 as amended after final rejection.  
Claims 3 and 4 stand objected to as being dependent upon a  
rejected claim, and claims 10-18 and 20-22 stand withdrawn  
from consideration by the examiner as being directed toward a  
nonelected invention.

*THE INVENTION*

Appellants' claimed invention is directed toward a  
process for decreasing paint pops and craters in a surface  
coating on a molded fiber reinforced thermoset plastic part  
having one or more surfaces which have been machined by  
cutting or abrading. The method includes heating the part to  
a temperature within a specified range, then applying a  
specified liquid epoxy composition to one or more machined  
surfaces of the part, and then curing the epoxy composition,  
thereby reducing paint pops and craters in a surface coating  
which is to be formed after the claimed process by coating the  
part and heating the coated part. Claim 1 is illustrative and  
reads as follows:

1. A process for decreasing defects on a molded fiber  
reinforced thermoset plastic part which part is, subsequent to  
being subjected to said process, surface coated and subjected

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to an elevated temperature said defects being caused by emanating subsurface gases, said process comprising:

first heating said molded thermoset fiber reinforced plastic part, said part having one or more machined surfaces formed by cutting or abrading, to a temperature of from about 120°F (49°C) to 400°F (204°C),

then applying a coating of a liquid epoxy composition to one or more the machined surfaces of said part, wherein said liquid epoxy composition has a Brookfield viscosity at 25°C of less than 4,000 poise,

and thereafter allowing said liquid epoxy composition to cure into a thermoset coating,

wherein said liquid epoxy composition comprises at least one oligomer having two or more reactive epoxy end groups and a hardener component reactive with said epoxy end groups, and wherein said defects are paint pops and paint craters in subsequently applied surface coatings.

#### *THE REFERENCES*

Smock et al. (Smock)	4,024,304	May 17,
1977 Holmes et al. (Holmes)	4,235,952	Nov.
25, 1980		

#### *THE REJECTION*

Claims 1, 2, 5-9 and 19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Holmes taken with Smock.

#### *OPINION*

We have carefully considered all of the arguments

advanced by appellants and the examiner and agree with appellants that the aforementioned rejection is not well founded. Accordingly, we do not sustain this rejection.

Holmes discloses a method for joining two fiberglass reinforced plastic (FRP) parts such that the seam line is not visible or is barely visible and such that a coating over the joined parts does not have defects such as paint pops and sinks (col. 1, lines 38-43). According to this method, the parts are joined by use of a polyester or polyurethane adhesive, and a cured epoxy resin/polyamide resin/amine composition is formed

over the seam at which the parts are joined (col. 1, lines 50-58; col. 3, lines 44-47; col. 3, line 65 - col. 4, line 17). In an example, the adhesive used to join the parts was cured (col. 4, lines 50-57) and then "sanded to remove the remaining hill or rounded bond portion at the seam to obtain the best finish so as to retain the originally desired contour and surface finish" (col. 4, lines 61-64). A polyepoxy resin/polyamide resin/amine composition then was applied to the seam and was cured, cooled, and sanded to restore the

original contour (col. 5, lines 38-45). After a white acrylic lacquer was applied over a sealer, the seam was nearly invisible and did not show any sink marks or paint pops (col. 5, lines 45-54). Holmes states that "[i]nstead of sanding the parts as described above, grinders, cutters and other devices may be used to remove extraneous material and obtain the desired contour, care being observed not to harm the surface of the FRP part" (col. 6, line 66 - col. 7, line 2).

The examiner is of the view that an abraded surface as recited in appellants' claim 1, which is appellants' only independent claim, is formed during Holmes' step of sanding the adhesive. The examiner argues that "logically it is unclear how an adhesive mass, as shown in Fig.1, could be 'sanded to remove the remaining hill . . . to retain the original contour', with the result pictured in Fig.2, without inherently causing *some* abrasion to the underlying molded surface. Further, the admonition to take care not to harm the surface of the FRP part supports the logic that the part is very likely to be at least slightly abraded by the sanding" (answer, pages 5-6).

When an examiner relies upon a theory of inherency, "the

examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Int. 1990). Inherency "may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Ex parte Skinner*, 2 USPQ2d 1788, 1789 (Bd. Pat. App. & Int. 1986).

The examiner has not provided the required evidence or technical reasoning which reasonably shows that abrasion of the FRP surface, which Holmes clearly indicates is to be avoided (col. 7, lines 1-2), necessarily results from the sanding of Holmes' adhesive. Instead, the examiner has merely asserted that such abrasion is possible or probable.

Smock is relied upon by the examiner for a disclosure of preheating an FRP part so that there is less air in the part when a sealing liquid containing suspended particles is applied to the

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part (answer, page 4). The examiner has not pointed out, and we do not find, any teaching in Smock which remedies the aforementioned deficiency in the disclosure of Holmes.

For the above reasons, we conclude that the examiner has not set forth a factual basis which is sufficient to support a conclusion of obviousness of appellants' claimed invention. Consequently, we do not sustain the examiner's rejection.

*DECISION*

The rejection of claims 1, 2, 5-9 and 19 under 35 U.S.C. § 103 as being unpatentable over Holmes taken with Smock is reversed.

*REVERSED*

MARY F. DOWNEY	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
JOAN ELLIS	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
TERRY J. OWENS	)	

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Administrative Patent Judge     )

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